

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: HOEKS *et al.* )  
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Serial No.: 10/064,073 ) Group Art Unit: 1711  
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Filed: June 7, 2002 ) Examiner: Woodward, Ana L.

For: **Process for Preparing a Fire Resistant Polycarbonate Composition**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**DECLARATION UNDER 37 CFR 1.132**

Theo Hoeks declares and says that:

1. I am an inventor of the above-referenced U.S. patent application serial number 10/064,073, herein referred to as the application.
2. I graduated from the Katholieke Universiteit Nijmegen (Catholic University in Nijmegen, the Netherlands) with a PhD Degree in organic chemistry in 1989. Since 1988, I have been employed by General Electric and have been engaged in the research and development of thermoplastic compositions, particularly polycarbonate compositions. Therefore, I have 18 years experience in the field of thermoplastic processing, particularly for polycarbonate compositions and materials derived therefrom.
3. One area in which I have particular experience, is polycarbonate compositions that have flame-resistant properties, and particularly with the various flame retardant

compounds used in flame-resistant polycarbonate compositions. I have attached Table A to this Declaration. Table A includes the flame retardants we use in our invention, which are all organic salts.

4. Table A:

Incompatible Organic Flame Retardant Salts	
Sodium or potassium perfluoromethylbutane sulphonate	Sodium or potassium perfluoromethane sulphonate
Sodium or potassium perfluoroethane sulphonate	Sodium or potassium perfluoropropane sulphonate
Sodium or potassium perfluorohexane sulphonate	Sodium or potassium perfluoroheptane sulphonate
Sodium or potassium perfluorooctane sulphonate	Sodium or potassium perfluorobutane sulphonate
Sodium or potassium diphenylsulfon-3-sulphonate	Sodium or potassium dichlorobenzoate
Sodium or potassium trichlorobenzoate	Sodium or potassium tosylsulphonate

5. The organic salts used in our invention are incompatible with our polycarbonate, and as such, the salts do not dissolve in the polycarbonate composition. It is well known by a person having ordinary skill in the art, that the organic salts listed in Table A, are incompatible with our polycarbonate composition. The advantage of using the organic flame retardant salts of Table A is that they do not dissolve in the polycarbonate composition, and, therefore, do not influence the glass transition temperature (T<sub>g</sub>) of the polycarbonate composition.

6. Moreover, in some cases a polycarbonate sheet can suffer from yellowing due to

the compatibility of the flame retardant compound in the composition. Table B lists the optical properties of two polycarbonate sheet samples.

7. Table B:

Optical Properties	Sample 1	Sample 2
Yellowness Index	0.95	0.95
Transmission (%)	90.8	90.7
Haze	0.95	0.95

Sample 1 is a polycarbonate composition containing no organic flame retardant salt.

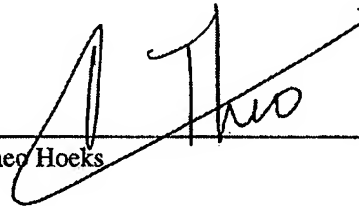
Sample 2 is a polycarbonate composition having a 20% aqueous solution of a potassium salt of diphenylsulfon-3-sulphonic acid (also referred to as "KSS") and found in the list of organic salts from Table A. As you can see from Table B, the optical properties, and particularly the yellowness index, are substantially the same between the two samples.

One of ordinary skill in the art would recognize, that the salt used in Sample 2 is incompatible with the polycarbonate composition, and therefore, does not negatively effect the properties of the polycarbonate, particularly the Tg and the optical properties.

7. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that

these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the patent.

Date: August 03, 07

  
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Theo Hoeks